Amendments to the Claims

1. *(Currently Amended)* An integrated circuit ~~(IC)~~ comprising a network, the network comprising a plurality of routers (R_1, R_2 up to and including R_x), at least one of the routers comprising a plurality of input ports ~~(102, 104, 106)~~ arranged to receive input data ~~(Input_1, Input_2, Input_3)~~ corresponding to at least two traffic classes, the routers further comprising a plurality of queues ~~(108a, 108b, 110a, 110b, 112a, 112b)~~, the queues being arranged to store input data corresponding to a single traffic class, wherein the input ports are coupled to at least two of the queues, the routers further comprising a switch ~~(700)~~, characterized in that the switch ~~(700)~~ is arranged to receive input from the plurality of queues ~~(108a, 108b, 110a, 110b, 112a, 112b)~~ simultaneously.

2. *(Currently Amended)* An integrated circuit ~~(IC)~~ as claimed in claim 1, wherein a first selection ~~(108a, 110a, 112a)~~ of the queues is arranged to store input data corresponding to a high priority traffic class, and wherein a second selection ~~(108b, 110b, 112b)~~ of the queues is arranged to store input data corresponding to a low priority traffic class.

3. *(Currently Amended)* An integrated circuit ~~(IC)~~ as claimed in claim 2, wherein the first selection ~~(108a, 110a, 112a)~~ is deployed to provide guaranteed communication services in the network, and wherein the second selection ~~(108b, 110b, 112b)~~ is deployed to provide best-effort communication services in the network.

4. *(Currently Amended)* An integrated circuit ~~(IC)~~ as claimed in claim 1, further comprising a controller ~~(100)~~ which is coupled to the input ports ~~(102, 104, 106)~~ and coupled to the switch ~~(700)~~, the controller ~~(100)~~ comprising a plurality of arbiters, wherein the arbiters of at least one of the traffic classes implement a predetermined schedule.

5. *(Currently Amended)* An integrated circuit ~~(IC)~~ as claimed in claim 1, wherein the switch comprises a plurality of multiplexers ~~(800, 802, 804)~~, each

multiplexer being coupled to an output port, and each one of the multiplexers being arranged to accept as input the input data stored in the queues ~~(108a, 108b, 110a, 110b, 112a, 112b).~~

6. *(Currently Amended)* A method for avoiding starvation of data in an integrated circuit ~~(IC)~~ comprising a network, the network comprising a plurality of routers ~~(R_1, R_2 up to and including R_X),~~ at least one of the routers comprising a plurality of input ports ~~(102, 104, 106)~~ receiving input data ~~(Input_1, Input_2, Input_3)~~ corresponding to at least two traffic classes, the routers further comprising a plurality of queues ~~(108a, 108b, 110a, 110b, 112a, 112b),~~ wherein the queues store input data corresponding to a single traffic class, the input ports being coupled to at least two of the queues, the routers further comprising a switch ~~(700)~~, characterized in that the switch ~~(700)~~ receives input from the plurality of queues ~~(108a, 108b, 110a, 110b, 112a, 112b)~~ simultaneously.